

Claims 1-10 remain pending in this application, claims 1-10 having been amended, by the present amendment.

In the outstanding Office Action, the disclosure and claims 2-4 and 10 were objected to for certain informalities, claims 1-10 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite, claims 1, 2, and 5-9 were rejected under 35 U.S.C. § 102(b) as being anticipated by *Archibald*, and claim 10 was rejected under 35 U.S.C. § 103(a) as being unpatentable over *Archibald* in view of *Miura et al.*

Applicants have amended the specification to insert headings. Applicants respectfully submit that the amendments to the specification do not add new matter. Based on the foregoing, Applicants respectfully request withdrawal of the objection to the disclosure.

Claims 1-10 have been amended. More particularly, claim 1 was amended to recite an assembly comprising: a first object and a second object; and support means for supporting the first object above the second object, the support means including first, second, and third protrusions protruding from the first object and first, second, and third pairs of protrusions protruding from the second object, wherein each protrusion of the first, second, and third protrusions of the first object and each protrusion of the first, second, and third pairs of protrusions of the second object have an end with a virtually sphere-segment shaped extremity, and wherein when the first and second objects are in an operational position so that the first object is above the second object, then the virtually sphere-segment shaped extremities of the first, second, and third protrusions of the first object are in contact with the virtually sphere-segment shaped extremities of the first, second, and third pairs of protrusions, respectively, of the second object.

As a quick synopsis of the applied prior art references, Applicants hereby repeat the abstract of *Archibald* and *Miura et al.*, as follows:

*Archibald* discloses an apparatus for repeatedly connecting a precision instrument to a support frame in an identical position relating to the support frame. The apparatus particularly relates to an improved kinematic restraint for removable equipment.

*Miura et al.* disclose a sliding contact producing method wherein: noble metal balls are easily positioned on a metal plate; the weld strength between the noble metal ball and the metal plate can be obtained sufficiently; and a noble metal mounting jig can be prevented from damage when the metal plate is beam-welded with the noble metal ball. While being received in the recess portions of a jig, the noble metal balls are respectively contacted with bowl-like recesses formed in the base surface of the metal plate. YAG laser beam is irradiated on the metal plate to weld the metal plate with the noble metal ball. Then the metal plate is sheared in a determined shape to form resilient strips. The present invention can improve welding operation efficiency and the reliability of welded portions. Since the metal plate being wider than that of the resilient strip receives beam, the metal contact mounting jig can be prevented from damage due to beam welding.

Neither *Archibald* nor *Miura et al.* teach or suggest, as is now recited in amended claim 1, that each protrusion of the first, second, and third pairs of protrusions of the second object have an end with a virtually sphere-segment shaped extremity, and wherein when the first and second objects are in an operational position so that the first object is above the second object, then the virtually sphere-segment shaped extremities of the first, second, and third protrusions of the first object are in contact with the virtually sphere-segment shaped extremities of the first, second, and third pairs of protrusions, respectively, of the second object.

More particularly, Applicants respectfully submit that although *Archibald* does disclose a second plate (26) with first, second, and third spherical members (32, 34, and 36)

similar to the first object (6) of the present invention having first, second, and third protrusions (7, 8, and 9) each having an end with a virtually sphere-segment shaped extremity, *Archibald* clearly does not disclose a second object having first, second, and third pairs of protrusions which each protrusion of the first, second, and third pairs of protrusions having a virtually sphere-segment shaped extremity as is now clearly recited in amended claim 1.

First, the first plate (10) of *Archibald* clearly does not have first, second, and third pairs of protrusions even though the Office Action attempted to pair one of the three convex spherical members (18) with the one rectangular boss (22). One of ordinary skill in the art would understand that the first plate (10) of *Archibald* has one single protrusion (i.e., the rectangular boss 22), one pair of protrusions (i.e., cylindrical members 20), and one triplet of protrusions (i.e., convex spherical members 18). It would be clear to one of ordinary skill in the art that *Archibald* did not intend that one of the convex spherical members 18 be paired with the rectangular boss 22.

Second, it is clear that the cylindrical members 20 and the rectangular boss 22 of *Archibald* do not end in virtually sphere-segment shaped extremities. Indeed, the Office Action mistakenly read unamended claim 1 to recite at least “one” extremity for the three individual protrusions of the first object and for the three pairs of protrusions of the second object. Unamended claim 1 was really reciting that all of the three individual protrusions and three pairs of protrusions ended in at least virtually sphere-segment shaped extremities, if not perfectly sphere-segment shaped extremities. In other words, the Office Action mistakenly read the word “one” into the claim, after the words “at least,” when the word “one” was never recited, nor intended. Nevertheless, in order to clear up any confusion, Applicants have now amended the claims in order to clearly recite that all of the protrusions of the first,

second, and third protrusions of the first object and the first, second, and third pairs of protrusions of the second object end in virtually sphere-segment shaped extremities and this is not taught, disclosed, or suggested by *Archibald*.

Applicants respectfully submit that the amendments to claim 1 do not add new matter. Applicants also respectfully submit that amended claims 2, 3, and 5-9 are either directly or indirectly dependent upon amended claim 1 so that arguments serving to patentably distinguish amended claim 1 from the prior art of record are available, among others, to patentably distinguish amended claims 2, 3, and 5-9. Based on the foregoing, Applicant respectfully requests withdrawal of the objections to the claims, withdrawal of the rejection of the claims under U.S.C. § 112, second paragraph, 102(b), and 103(a), and allowance of amended claims 1-3 and 5-10.

New claims 11-18 have been added to claim the invention in varying scope. More particularly new independent claim 11 is the same as amended independent claim 1, except written in non-means-plus-function language and exchanging the word --plate-- for “object.” Dependent claims 12-18 are similar to dependent claims 2, 3, and 5-9, except without means-plus-function language and exchanging the word --plate-- for “object.” Applicants respectfully submit that new independent claim 11 is patentable for the same reasons as amended independent claim 1.

Applicants respectfully submit that new claims 11-18 do not add new matter. Applicants also respectfully submit that new claims 12-18 are either directly or indirectly dependent upon new claim 11 so that arguments serving to patentably distinguish new claim 11 from the prior art of record are available, among others, to patentably distinguish new claims 12-18. Based on the foregoing, Applicant respectfully requests allowance of new claims 11-18.

In view of the foregoing, claim 1-3, and 5-18 are believed to be in condition for allowance, and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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MAIER & NEUSTADT, P.C.

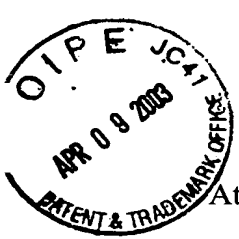
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Serial No: 10/070,818  
Amendment Filed on:  
4-9-03

**IN THE SPECIFICATION:**

Please amend the specification, as follows:

Page 1, lines 1-12, please amend the paragraph, as follows:

[Assembly for supporting an object

]

**--ASSEMBLY FOR SUPPORTING AN OBJECT**

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**BACKGROUND OF THE INVENTION**

Field of the Invention--

The present invention relates to an assembly, comprising a first object and a second object, and means for the defined support of the first object on the second objection, the means including three individual protrusions.

--Discussion of Background--

Assemblies of this type are known in the technical field, the protrusions usually being indicated as legs. The known support assemblies provide a satisfactory hold on a horizontal, smooth base. A direction of the first object relative to the second object is thereby indeterminate.

**--SUMMARY OF THE INVENTION--.**

Page 4, before line 1, please insert the heading, as follows:

--BRIEF DESCRIPTION OF THE DRAWING FIGURES--.

Page 4, line 13, please insert the heading, as follows:

--DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS--.

Page 7, line 1, please amend "Claims:" to, as follows:

[Claims:]--WHAT IS CLAIMED AS NEW AND DESIRED TO BE SECURED BY  
LETTERS PATENT OF THE UNITED STATES IS:--

**IN THE CLAIMS:**

Please cancel claim 4, without prejudice or disclaimer, amend claims 1-3 and 5-10,  
and add new claims 11-18, as follows:

1. (Amended) [Assembly,] An assembly comprising:

a first object and a second object[,]; and

support means for [the defined support of] supporting the first object [on] above the  
second object, the support means including [three individual] first, second, and third  
protrusions protruding from the first object and first, second, and third pairs of protrusions  
protruding from the second object, [characterized in that] wherein each protrusion of the  
[individual] first, second, and third protrusions [are provided] of the first object and each  
protrusion of the first, second, and third pairs of protrusions of the second object have an end  
with [at least] a virtually sphere-segment shaped [extremities, that the means also include  
three pairs of protrusions, combining with the individual protrusions, which are likewise  
provided with at least virtually sphere-segment shaped extremities] extremity, and [that]  
wherein when the first and second objects are in an operational [condition each individual  
protrusion] position so that the first object is above the second object, then the virtually  
sphere-segment shaped extremities of the first, second, and third protrusions of the [one] first

object [contacts a corresponding pair] are in contact with the virtually sphere-segment shaped extremities of the first, second, and third pairs of protrusions, respectively, of the [other] second object.

2. (Amended) [Assembly] The assembly according to claim 1, [characterized in that the first object is provided with three] wherein the virtually sphere-segment shaped extremity of each of the first, second, and third protrusions[, the centres of their sphere-segment shaped extremities defining] of the first object has a center and together the centers of the virtually sphere-segment shaped extremities of the first, second, and third protrusions of the first object define vertices of a first triangle[, that the second object is provided with three pairs of protrusions, the three pairs defining a second triangle which at least virtually corresponds with the first triangle, and that in an operational condition each individual protrusion of the first object rests on the corresponding pair of protrusions of the second object].

3. (Amended) [Assembly] The assembly according to claim [1] 2, [characterized in that a] wherein the virtually sphere-segment shaped extremity of each protrusion of the first, second, and third pairs of protrusions of the second object has a center such that midpoints of connecting [line] lines between [two centres] the centers of the virtually sphere-segment shaped extremities of [a] each pair [run at least substantially perpendicularly to a bisector of the angle of the second triangle where the pair is positioned] of protrusions of the first, second, and third pairs of protrusions define vertices of a second triangle, the second triangle being substantially identical to the first triangle defined by the centers of the virtually sphere-segment shaped extremities of the first, second, and third protrusions of the first object.

4. (Canceled).

5. (Twice Amended) [Assembly] The assembly according to claim 1, [characterized in that] wherein each protrusion of the first, second, and third protrusions of the first object



and each protrusion of the first, second, and third pairs of protrusions of the second object are formed by metal balls, [which are] all of the metal balls being partially [incorporated in] embedded into either the first object or [in] the second object.

6. (Amended) [Assembly] The assembly according to claim 5, [characterized in that] wherein all of the metal balls have a virtually equal diameter.

7. (Twice Amended) [Assembly] The assembly according to claim 1, [characterized in that] further comprising fastening means [are provided] for [the mutual] mutually fastening [of] the [combined] first and second objects in the operational positions thereof.

8. (Amended) [Assembly] The assembly according to claim 7, [characterized in that] wherein the fastening means include any one of a screwed connection, a spring[ or], and a magnet.

9. (Amended) [Object] The first object provided with [individual] the first, second, and third protrusions [and/or] and the second object provided with the first, second, and third pairs of protrusions, suitable for application in [an] the assembly according to claim 1.

10. (Amended) [Method] A method for [the reproducible] supporting [of] a first object on a second object, the method comprising the steps of:

[three holes being made] making first, second, and third indentations in the first object[, in which];

subsequently [are fitted three] fitting first, second, and third metal balls[ or objects with] each having a ball-shaped extremity into the first, second, and third indentations, respectively, in the first object, [the centres] wherein a center of each of the first, second, and third metal balls [or ball-shaped extremities defining] of the first object defines a vertex of a first triangle[, characterized in that in the second object];

[three] making first, second, and third pairs of [holes are made, in which] indentations  
in the second object:

subsequently [are fitted three] fitting a ball-shaped extremity of each of the first,  
second, and third pairs of metal balls [or objects with a ball-shaped extremity] into the first,  
second, and third pairs of indentations, respectively, made in the second object, wherein the  
[three] ball-shaped extremity of each ball of the first, second, and third pairs of balls  
[defining] has a center and midpoints between connecting lines connecting the centers of  
each pair of balls of the first, second, and third pairs of balls define vertices of a second  
triangle which is [at least] virtually [similar] identical to the first triangle[,]; and

placing the [three balls or] ball-shaped [extremities] extremity of each of the first,  
second, and third balls of the first object [then being placed] into supporting contact on the  
[three pairs of balls or] ball-shaped extremities of the first, second, and third pairs of balls,  
respectively, of the second object.

11-18. (New).